CLAIMS

WHAT IS CLAIMED IS:

1. A process cheese comprising casein and whey protein with a ratio of casein to whey protein of from about 50:50 to about 75:25, wherein the process cheese has a penetrometer firmness of about 10 to about 20 mm and a melting point of about 105 to about 150°F.

2. The process cheese of claim 1, further comprising an emulsifier, milkfat, and one or more ingredients selected from whole whey, cheese, and lactic acid.

3. The process cheese of claim 1, wherein the ratio of casein to whey protein in the process cheese is from about 60:40 to about 75:25.

4. The process cheese of claim 1, wherein the ratio of casein to whey protein is from about 60:40 to about 70:30.

5. The process cheese of claim 1, comprising about 15 to about 35 percent cheese, about 10 to about 20 percent added fat, about 2.75 to about 3.25 percent emulsifier, about 5 to about 20 percent milk protein concentrate, and about 10 to about 20 percent whey protein concentrate.

6. The process cheese of claim 1, comprising about 15 to about 25 percent added fat, about 2.75 to about 3.25 percent emulsifier, about 0.5 to about 1.0 percent lactic acid, about 5 to about 20 percent milk protein concentrate, and about 10 to about 20 percent whey protein concentrate.

7. The process cheese of claim 6, further comprising about 2 to about 10 percent whole whey.

8. A method for preparing process cheese comprising the following:

(1) combining milk protein, whey protein, milkfat, an emulsifier, and one or more ingredients selected from whole whey, cheese, and lactic acid, to form a dairy emulsion;

(2) cooking the dairy emulsion to form a cooked emulsion; and

(3) cooling the cooked emulsion to form a process cheese,

wherein at least one of the dairy emulsion or the cooked emulsion is homogenized, wherein the process cheese has a ratio of casein to whey protein of from about 50:50 to about 75:25, and wherein the process cheese has a penetrometer firmness of about 10 to about 20 mm and a melting point of about 105 to about 150°F.

9. The method of claim 8, wherein the process cheese has a casein to whey protein of from about 60:40 to about 70:30.

10. The method of claim 8, wherein the dairy emulsion comprises about 15 to about 35 percent cheese, about 10 to about 20 percent added fat, about 2.75 to about 3.25 percent emulsifier, about 5 to about 20 percent milk protein concentrate, and about 10 to about 20 percent whey protein concentrate.

11. The method of claim 8, comprising about 15 to about 25 percent added fat, about 2.75 to about 3.25 percent emulsifier, about 0.5 to about 1.0 percent lactic acid, about 5 to about 20 percent milk protein concentrate, and about 10 to about 20 percent whey protein concentrate.

12. The method of claim 8, further comprising about 2 to about 10 percent whole whey.

13. The method of claim 8, wherein the dairy emulsion is homogenized.

14. The method of claim 8, wherein the cooked emulsion is homogenized.

15. A method for producing a process cheese comprising:

(1) combining milk protein, whey protein, milkfat, an emulsifier, and optionally one or more other ingredients selected from whole whey, cheese, and lactic acid to form a dairy emulsion, wherein at least one of the milk protein and the whey protein is a modified dairy protein source;

(2) cooking the dairy emulsion to form a cooked emulsion; and

(3) cooling the cooked emulsion to form a process cheese,

wherein the process cheese has a ratio of casein to whey protein of from about 50:50 to about 75:25 and wherein the process cheese of has a penetrometer firmness of about 10 to about 20 mm and a melting point of about 105 to about 150°F.

16. The method of claim15 wherein at least one of the dairy emulsion or the cooked emulsion is homogenized.

17. The method of claim 15, wherein the modified dairy protein source is a high solubility milk protein.

18. The method of claim 15, wherein the modified dairy protein source is a high viscosity whey protein.

19. The method of claim 18, wherein the high viscosity whey protein further comprises a low calcium concentration.

20. The method of claim 15, wherein the modified dairy protein source is an emulsified high fat whey protein.

21. The method of claim 15, wherein the modified dairy protein source is a whey protein source having a low calcium concentration.

22. An emulsified high fat whey protein powder comprising a fat stabilized by whey protein prepared by a method comprising forming an emulsion containing a dairy fat, a whey protein, and water having an average particle size of about 0.5 to about 2 microns and spray drying the emulsion to form the emulsified high fat whey protein powder.

23. The emulsified high fat whey protein powder as described in claim 22, wherein the emulsified high fat whey protein powder has an average particle size of about 50 to about 400 microns.

24. The emulsified high fat whey protein powder as described in claim 22, wherein the powder contains about 40 to about 50 percent dairy fat, about 15 to about 20 percent whey protein, and about 1 to about 4 percent water.

25. The emulsified high fat whey protein powder as described in claim 23, wherein the powder contains about 44 to about 46 percent dairy fat, about 18 to about 20 percent whey protein, and about 2 to about 3 percent water.

26. The emulsified high fat whey protein powder as described in claim 22, wherein the emulsified high fat whey protein powder is reconstituted in an aqueous liquid.